WHAT IS CLAIMED IS:

1. A radio portable terminal device, comprising:

a radio communication unit for carrying out communications via a computer network or a telephone network through a radio base station by exchanging data packets;

a local network communication unit for carrying out communications with another portable computer/device connected to a local network different from the computer network or the telephone network, the local network being a network locally defined for communications between the radio portable terminal device and said another portable computer/device; and

a packet transfer processing unit for determining whether a specific processing of the data packets received from a correspondent device connected to the computer network or the telephone network by the radio communication unit is to be carried out using resources of the radio portable terminal device or not, according to an attribute of the data packets or data contained in the data packets, and transferring a part or whole of the data contained in the data packets to at least one of said another portable computer/device from the local network communication unit and another computer connected to the computer network from the radio communication unit such that the specific processing of the data packets determined not to be carried out using the resources of the radio portable terminal device is carried out at said at least one of said another portable computer/device and said another computer.

2. The radio portable terminal device of claim 1, wherein said another portable computer/device is located in a vicinity of the radio portable terminal device and the local network communication unit is connected to said

another portable computer/device using a radio or infrared connection.

3. The radio portable terminal device of claim 1, wherein the data packets received from the correspondent device by the radio communication unit contain multimedia data, and the packet transfer processing unit outputs one type of data in a specific medium among the multimedia data through an output device associated with the radio portable terminal device while transferring other type of data in media other than the specific medium among the multimedia data to said another portable computer/device or said another computer.

4. The radio portable terminal device of claim 1, further comprising a memory for registering in advance a rule information given in terms of at least one of size, format, and content of data, which is to be used as criteria for a determination to be made by the packet transfer processing unit.

5. The radio portable terminal device of claim 1, wherein the packet transfer processing unit determines to transfer one type of data contained in the data packets that have a specific type of attribute to said another portable computer/device or said another computer without outputting or storing said one type of data at the radio portable terminal device.

6. The radio portable terminal device of claim 1, wherein the packet transfer processing unit determines to transfer one type of data contained in the data packets that have a size exceeding a capacity of a memory medium available in the radio portable terminal device to said another portable computer/device or said another computer without storing

said one type of data at the radio portable terminal device.

7. The radio portable terminal device of claim 1, wherein the packet transfer processing unit determines to output one type of data contained in the data packets that have a specific type of attribute through an output device associated with the radio portable terminal device without storing said one type of data at the radio portable terminal device and without transferring said one type of data to said another portable computer/device or said another computer.

8. The radio portable terminal device of claim 1, wherein the data contained in the data packets are voice data and image data associated with the voice data and at least a part of the image data have a prescribed tag information attached thereto, and the packet transfer processing unit outputs the voice data and the image data in synchronization according to the prescribed tag information, through output devices associated with the radio portable terminal device.

9. The radio portable terminal device of claim 1, further comprising a memory for registering in advance priority levels assigned to a plurality of computers/devices, and the packet transfer processing unit selects one of said plurality of computers/devices as said another portable computer/device or said another computer according to the priority levels registered in the memory.

10. The radio portable terminal device of claim 9, the packet transfer processing unit regularly checks a communication capability of each of said plurality of computers/devices, and selects one of said plurality of

computers/devices that is currently capable of carrying out communications as said another portable computer/device or said another computer.

11. The radio portable terminal device of claim 1, wherein the radio communication unit receives the data packets from the correspondent device via said another computer, in a converted form by which an attribute of data contained in the data packets can be identified or conjectured at the radio portable terminal device that is obtained at said another computer.

12. The radio portable terminal device of claim 1, wherein the radio communication unit has at least one of a function for connecting the radio portable terminal device to the telephone network via the radio base station and a function for connecting the radio portable terminal device to the computer network via the radio base station and a router device.

13. The radio portable terminal device of claim 1, wherein the packet transfer processing unit determines to output the data contained in the data packets at the radio portable terminal device, store the data at the radio portable terminal device, transfer the data to said another portable computer/device, or transfer the data to said another computer, by referring to a data attribute tag attached to the data and indicating a type of the data.

14. A radio portable terminal device, comprising:

a radio communication unit for carrying out communications with a correspondent device connected to a computer network or a telephone network, through a radio base station by exchanging data packets; and

a packet transfer processing unit for determining

whether a prescribed condition is satisfied for the communications with the correspondent device or not, and transferring data packets containing data to be transmitted to the correspondent device to a prescribed another computer connected to the computer network such that the data to be transmitted to the correspondent device are transmitted to the correspondent device from the prescribed another computer when it is determined that the prescribed condition is satisfied for the communications with the correspondence device.

15. The radio portable terminal device of claim 14, wherein the packet transfer processing unit transfers the data packets to the prescribed another computer by attaching an information for requesting the prescribed another computer to transmit the data contained in the data packets to the correspondent device, when the data to be transmitted to the correspondent device have a specific type of attribute.

16. The radio portable terminal device of claim 14, wherein the packet transfer processing unit determines to request the prescribed another computer to carry out the communications with the correspondent device on behalf of the radio portable terminal device when it is judged that a cost required for carrying out the communications between the correspondent device and the radio portable terminal device and a cost required for carrying out the communications between the correspondent device and the prescribed another computer are in a prescribed relationship.

17. The radio portable terminal device of claim 14, wherein the prescribed another computer is also connected to the telephone network;

the radio portable terminal device further comprises a local network communication unit for carrying out communications with another portable computer/device connected to a local network different from the computer network or the telephone network, the local network being a network locally defined for communications between the radio portable terminal device and said another portable computer/device; and

when the radio portable terminal device or said another portable computer/device carries out voice communications with the correspondent device via the prescribed another computer, the radio portable terminal device or said another portable computer/device sets up a first voice channel between the radio portable terminal device and the prescribed another computer through the computer network, and commands the prescribed another computer to set up a second voice channel between the prescribed another computer and the correspondent device, transfer voice information received from the first voice channel to the second voice channel, and transfer voice information received from the second voice channel to the first voice channel, and the radio portable terminal device transfers received voice information to a final transfer destination of the received voice information according to a data attribute tag attached to the received voice information and indicating a type of data contained in the received voice information.

18. The radio portable terminal device of claim 14, wherein the prescribed another computer is also connected to the telephone network;

the radio portable terminal device further comprises a local network communication unit for carrying out communications with another portable computer/device connected to a local network different from the computer

network or the telephone network, the local network being a network locally defined for communications between the radio portable terminal device and said another portable computer/device; and

when the radio portable terminal device or said another portable computer/device carries out voice communications with the correspondent device via the prescribed another computer and a call termination from the correspondent device to the prescribed another computer occurs, the radio portable terminal device or said another portable computer/device commands the prescribed another computer to respond to the call termination, enable information input/output at a first voice channel between the prescribed another computer and the correspondent device through the telephone network, set up a second voice channel between the prescribed another computer and the radio portable terminal device through the computer network, produce a call termination message containing a data attribute tag indicating voice information, transfer the call termination message to the radio portable terminal device through the second voice channel, transfer voice information received from the first voice channel to the second voice channel, and transfer voice information received from the second voice channel to the first voice channel, and upon receiving the call termination message, the radio portable terminal device responds to the call termination message or transfers the call termination message to said another portable computer/device though the local network, according to a value of the data attribute tag contained in the call termination message, sets up a third voice channel between the radio portable terminal device and said another portable computer/device through the local network if the call termination message is transferred to said another portable computer/device, transfers voice information received from the second voice

channel to the third voice channel while transferring voice information received from the third voice channel to the second voice channel if the third voice channel is set up.

19. The radio portable terminal device of claim 14, further comprising a memory for registering in advance priority levels assigned to a plurality of computers, and the packet transfer processing unit selects one of said plurality of computers as the prescribed another computer according to the priority levels registered in the memory.

20. The radio portable terminal device of claim 14, wherein the radio communication unit has at least one of a function for connecting the radio portable terminal device to the telephone network via the radio base station and a function for connecting the radio portable terminal device to the computer network via the radio base station and a router device.

21. A gateway device, comprising:

a transfer unit for transferring voice data received from a network for transferring data packets, to a radio portable terminal device that is a destination of the voice data, via a telephone network through a radio base station or via the network through a router device and a radio base station; and

a control unit for judging whether a specified condition is satisfied by non-voice data that are to be transferred along with the voice data to the radio portable terminal device, if the non-voice data exist, and controlling the transfer unit to transfer the non-voice data to another computer/device without transferring the non-voice data to the radio portable terminal device when it is judged that the specified condition is satisfied by the non-voice data.

22. The gateway device of claim 21, wherein said another computer/device is a computer connected to the network or a portable computer/device connected with the radio portable terminal device by a local network which is locally defined for communications between the radio portable terminal device and the portable computer/device, and said another computer/device is specified to the gateway device from the radio portable terminal device.

23. The gateway device of claim 21, wherein the specified condition is a condition based on at least one of a size, a format, and a content of data, which is specified to the gateway device from the radio portable terminal device.

24. A communication processing control method at a radio portable terminal device, comprising the steps of:

connecting the radio portable terminal device with a correspondent device connected to a computer network or a telephone network, through a radio base station, and receiving data packets from the correspondent device;

connecting the radio portable terminal device with another portable computer/device connected to a local network different from the computer network or the telephone network, the local network being a network locally defined for communications between the radio portable terminal device and said another portable computer/device;

determining at the radio portable terminal whether a specific processing of the data packets received from the correspondent device is to be carried out using resources of the radio portable terminal device or not, according to an attribute of the data packets or data contained in the data packets; and

transferring a part or whole of the data contained in

the data packets from the radio portable terminal device to said another portable computer/device or another computer connected to the computer network, such that the specific processing of the data packets is carried out at said another portable computer/device or said another computer when the determining step determines that the specific processing of the data packets is not to be carried out using the resources of the radio portable terminal device.

25. A communication processing control method at a radio portable terminal device, comprising the steps of:

connecting the radio portable terminal device with a correspondent device connected to a computer network or a telephone network, through a radio base station, and receiving data packets from the correspondent device;

determining at the radio portable terminal device whether a prescribed condition is satisfied for communications with the correspondent device or not; and

transferring data packets containing data to be transmitted to the correspondent device from the radio portable terminal device to a prescribed another computer connected to the computer network such that the data to be transmitted to the correspondent device are transmitted to the correspondent device from the prescribed another computer when the determining step determines that the prescribed condition is satisfied for the communications with the correspondence device.

26. A communication processing control method at a gateway device, comprising the steps of:

transferring voice data received at the gateway device from a network for transferring data packets, to a radio portable terminal device that is a destination of the voice data, via a telephone network through a radio base station or via the network through a router device and a radio base

station;

judging at the gateway device whether a specified condition is satisfied by non-voice data that are to be transferred along with the voice data to the radio portable terminal device, if the non-voice data exist; and

controlling the gateway device to transfer the non-voice data to another computer/device without transferring the non-voice data to the radio portable terminal device when the judging step judges that the specified condition is satisfied by the non-voice data.